



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,072	02/13/2006	Masaki Ukai	P71118US0	7453

136 7590 01/25/2007
JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

EXAMINER

REDDY, KARUNA P

ART UNIT	PAPER NUMBER
----------	--------------

1713

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/568,072

Applicant(s)

UKAI ET AL.

Examiner

Karuna P. Reddy

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 5/23/2006.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claim 1-6, 10-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative under 35 U.S.C. 103(a) as being obvious over Takegawa et al (US

Art Unit: 1713

4,386,992).

Takegawa et al disclose a two-part adhesive composition comprising an aqueous emulsion adhesive and a gelling agent (abstract). The aqueous emulsion adhesive usually comprises an emulsion of a polymer in water and optionally a plasticizer (column 1, lines 22-24). Plasticizers can be phthalic acid esters (column 4, lines 30-31) and read on the plasticizers of instant invention in light of the specification. The aqueous emulsion adhesives include polyacrylate, acrylate copolymer (column 4, line 14-18) that reads on thermoplastic resin of claim 1 and acrylic resin of claim 4. The gelling agent which can gelate aqueous emulsion adhesive includes various surface active agents, metal hydroxides, organic acids, organic acid salts, water-soluble organic solvents (column 2, lines 35-41). Suitable examples of organic solvents are alcohols, ketones such as acetone and methyl ethyl ketone (column 3, lines 21-24) which read on the gelling agent of claim 3 and the component of claim 2 that swells the thermoplastic resin of claim 1. Furthermore, emulsion adhesive that includes polyacrylate and acrylate copolymer (column 4, lines 14-18) can be used as a plasticizer (column 4, lines 8-10) and reads on the gelling agent of claims 5 and 6. When an emulsion is used as the gelling agent, the ratio of aqueous adhesive:gelling agent is 1:0.01 to 1:100 (column 4, lines 8-11) and overlaps with the ratio in claim 12. In example 1, an anionic type acrylic polymer and the gelling agent are applied with a spray gun (column 5, lines 30-37) and reads on the composition that has a sprayable viscosity of claim 11.

The prior art of Takegawa is silent with respect to gelation at room temperature, in 30 sec. to 60 min., after mixing aqueous emulsion adhesive comprising plasticizer with gelling agent.

However, in light of the fact that prior art teaches / discloses essentially the same composition as that of the claimed, one of ordinary skill in the art would have a reasonable basis to believe that two part composition of prior art comprising an aqueous emulsion adhesive and a gelling agent exhibits essentially the same property(ies). Since PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobviousness difference. See *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

Even if properties of the two part composition of instant claims and prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make a two-part composition having the claimed properties because it appears that the references generically embrace the claimed thermoplastic resin, plasticizer and gelling agent and the person of ordinary skill in the art would have expected all embodiments of the reference to work. Applicants have not demonstrated that the differences, if any, between the claimed composition and the composition of prior art give rise to unexpected results.

5. Claims 7-9 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takegawa (US 4,386,992) in view of Nakano et al (US 5,166,229).

The discussion with respect to Takagawa et al in paragraph 4 is incorporated here in by reference.

The prior art reference of Takagawa et al is silent with respect to

- a) thermosetting epoxy resin, latent curing agent and viscosity.
- b) utilization of composition in spot/body welding step of an automobile assembly line.

With respect to a) Nakano et al teach that epoxy resins are widely used as an adhesive or paint composition because of their adhesion to various materials with excellent mechanical properties, electrical properties and chemical resistance (column 1, lines 16-19). The composition is incorporated with a latent curing agent (column 3, lines 14-15) to accelerate curing of resins. The composition has preferably a viscosity of not less than 500 poises (column 3, lines 12-13) and reads on the viscosity of greater than 50 Pas of claim 13. Therefore, it would have been obvious to one skilled in the art at the time invention was made to add thermosetting epoxy resins and latent curing agent to the two part adhesive composition of Takagawa et al to realize above mentioned advantages.

With respect to b) Nakano et al teach that the epoxy resin composition has excellent shower resistance and wiping properties and is useful as an adhesive, particularly as a structural adhesive in an assembly line of automobiles (abstract). The composition can be used in spot welding in the assembly line of automobiles (column 3, lines 34-35) and reads on claims 14-16 in light of

Art Unit: 1713

specification of the instant invention. Therefore, it would have been obvious to one skilled in the art at the time invention was made to apply the composition of Takagawa et al in the spot welding step because Nakano et al have proven successfully the process of applying resin composition comprising a gelling agent in the spot welding step of assembly line of automobiles and one of ordinary skill in the art would have expected the process to work for the composition of Takagawa et al, motivated by expectation of success.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

Art Unit: 1713

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karuna P Reddy
Examiner
Art Unit 1713



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700